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T H E

*Artificial Gardiner :*

Being, a Discovery of

*R 3668*

A N E W I N V E N T I O N

For the sudden Growth of all sorts of  
*Trees and Plants, &c.*

(Price Six Pence.)

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THE  
*Artificial Gardiner :*

Being, a Discovery of

964. c. 20  
3

A NEW INVENTION

For the sudden Growth of all sorts of  
*Trees and Plants.* Whereby GARDENS  
may be stock'd with Variety of *Plants*  
and *Fruit-Trees* : And *Forrests* rais'd  
upon the most Barren Grounds in a  
very short Time. Also how to Pro-  
duce FLOWERS and FRUITS in the midst  
of Winter. The whole confirm'd by  
EXPERIMENTS.

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Translated from the Original *High-*  
*Dutch*, of GEORGE ANDREAS AGRICOLA,  
of Ratisbone. M. D.

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To which are added,  
REMARKS upon this *New Art* of VEGETA-  
TION. By a FELLOW of the *Royal Society*.

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L O N D O N :

Printed for E. Curll, at the Dial and Bible against St.  
Dunstan's Church in Fleet-street, 1717.







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# PREFACE

BY THE

TRANSLATOR.

**T**HE Argument of  
*Vegetation* is exceed-  
ing Noble, largely  
Useful, and worthy to  
be expos'd to Publick  
Consideration, and a ge-  
neral and accurate discus-  
sion ;

## P R E F A C E.

tion ; to the end, that where Observations are uncertain, and Experiments fickle, failing, or casual, the various Track or Operation of Nature, may be the better discover'd by the greater store of confronting Tryals and Observations.

I am very sensible that the following Proposals will fill the Reader with Surprise, as containing  
Matters

## P R E F A C E

Matters which are entirely New, and above the Performance of every Pretender to *Gardening*.

I thought my self therefore oblig'd in Justice to the *Author*, whom I have been Conversant with, to strengthen his *Discovery* by some *Remarks* of the like Nature, that the World may see what he proposes is not Impracticable.

When



## PREFACE.

When I was at *Ratisbone*, some Years since, Dr. *Agricola* was equally esteem'd for his great Skill in *Phyfic*, and his Wonderful Judgment in *Plants*, and other Natural Curiosities; and the Employment of his Time was such, as clearly manifested that his Labours were Design'd more for the Improvement of Knowledge,

## PREFACE

ledge, than the promoting  
his own Interest.

To conclude, If this  
*Invention* should be flight-  
ed for its Novelty, as  
many other Valuable ones  
have been ; yet I make  
not the least Question,  
but that it will one time  
or other, gain Credit in  
the World, either by  
some *lucky Thought* which  
it may Introduce, or by  
exciting the Curiosity of  
the

## PREFACE.

the Ingenious, to make  
farther *Experiments* in the  
Art of *Vegetation*.

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There is just Publish'd in *Latin* and  
*English*,

**T**HE *History of Succulent Plants*;  
Containing the *Aloes Ficoids*,  
or (*Fig-Mary-Golds*) *Torch-Thistles*, *Mel-*  
*lon Thistles*, and such others as are  
not capable of an *Hortus-Siccus*. En-  
grav'd from the *Originals*, on Copper-  
Plates. With their *Descriptions*, and  
manner of *Culture*. *Decade I.* By  
*Richard Bradley*, *Fellow of the Royal*  
*Society*. 4to. Price 2 s.

**D**issertatio Historico Philosophica  
de Atheismo, sive Historia Athe-  
ismi. Authore J. T. Philips. 8vo.  
Pretium 3 s.

Both Sold by E. Curll, at the *Dial*  
*Bible* against *St. Dunstan's Church*  
*Fleetstreet*.

In the Press, and will be publish'd  
next Term,

**T**HE History of the Commerce  
and Navigation of the Anci-  
ents. Written in *French* by *Monsieur*  
*Huet*, Bishop of *Avranches*. Made  
*English* from the *Paris* Edition. To  
which will be added, Remarks and  
Observations upon the Modern Trade,  
8vo. Price 5 s. Printed for E. Curll.

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THE

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THE  
German PRINTER'S  
ADVERTISEMENT  
TO THE  
READER.

Kind Reader,

THE new invented Perpetual Motion, by Mr. Orffyr, of Merfenburg, has not raised greater Expectation among the Mathematicians, than the rare and useful Invention of Dr. Agricola, for the sudden growth of Trees and  
A Plants,



## The Printer to the Reader.

*Plants, has awaken'd in the Curiosity of Gard'ners, and Natural Philosophers. And as the former extraordinary Discovery of a Perpetual Motion has been approv'd of by wise and learned Men, so Dr. Agricola has sufficiently demonstrated the Truth of his surprizing Invention in the presence of a great Minister of State, to his astonishing Satisfaction.*

*Now, tho' we should suppose that he cannot perform on Plants and Fruit Trees, all that he has promis'd, yet the propagating of Wood on barren Grounds, will be of infinite Use in those Countries*

The Printer to the Reader.

*tries where Timber and Fuel is  
wanting.*

*We wait with impatience a  
further Account of this new Dis-  
covery, which shall be faithfully  
made publick so soon as it comes  
to our Hands, that the Curious  
may have a clearer view into the  
Mystery of the Vegetation of  
Plants.*

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*To all Honourable PATRONS  
and Lovers of Planting  
and Gardening, that fa-  
vour the universal growth  
of Trees, &c.*

'TIS well known that for  
some Years past, Dr. *Agri-  
cola* of *Ratistone* has been at  
great Pains and Charge in culti-  
vating all sorts of Plants, whe-  
ther Domestick or Exotick, till  
at length, with God's Blessing,  
upon his honest Endeavours, he  
has discover'd a new, and hither-  
to unknown Method to expedite  
the

the growth of Vegetables, grounded upon most obvious natural Reasons, that cannot be contradicted, he offers First,

## ARTICLE I.

**T**HAT a lover of Gardening may from the Leaves, Slips, small Twigs, or Branches of any Exotick Tree or Plant whatsoever, raise Sixty compleat Trees to grow, prosper and bear Fruit ; and this he promises to perform in seven Hours time, by the help of Fire, and his newly invented Vegetative Mixture : And it is added, that if this Exercise should be continued for some Days, his  
Trees

Trees will so greatly encrease, that he must be seiz'd with Joy and Amazement at his own Productions.

## REMARKS.

**I**N the foregoing Article, the Author of this wonderful Secret offers three Things well worth our enquiry, viz.

1. *The raising of Plants from single Leaves.*
2. *The forwarding their Growth by help of Fire.*
3. *The preparing of a Compost to plant them in, which he calls Vegetative Mummy.*

It has been often experienc'd by an Ingenious Englishman of my Acquaintance,



tance, that a single Leaf of the *Laurus-tinus* being cut from the Tree, with the Bud adjoining to its pedicle, will easily take Root if it be forthwith planted in the Shade and well water'd; and I have more than once heard of Orange and Limon Trees that have been rais'd the same way. I believe any Plant may be encreas'd by the same Method; for every Bud contains all the necessary parts for Vegetation in its self, as much as any Seed or full grown Plant whatever. So that it is no great wonder if Buds of this sort should strike Root and vegetate, if they are laid in a proper Menstruum. Now altho' the Earth is the common Matrix for the production of Plants, yet we may suppose that the Juices of it being refin'd, and put into a right vegetative Posture, by their passage through the Fibres of a Plant, will add very greatly to the speedy Germination of the Bud, which may be steep'd in them. As for Example,

If

If I would raise an Elm Plant in the manner which seems to be propos'd by our Author, I would by some means express the Sap of an Elm Tree, or part of it, so that I should not have less than half a Pint of Juice, to which I would add of the Ashes of the same Tree a convenient quantity, to make a Vegetation Paste; into this Compost I would put several Buds of an Elm, (for the same Reason that Inoculation of Plants is practis'd) in this state my Bud is prepar'd to grow; and being lodg'd in such a Matrix, as will reasonably afford it convenient and healthful Nourishment, there will remain no more to be done than the putting in Motion these Vegetative parts contain'd in the Paste or Compost, for which end we may use Fire, temper'd in that manner that the Heat may be moderate, and not too dry; but this inconveniency I think may be avoided, if we rather made choice of

a boiling Water, whose Steam would dilate and open the parts of the Bud when it began to Vegetate, that they might receive in more abundance those Vegetative Effluvia which would arise from the mixture.

The Air falling on the outward parts of our young Plant, would contract the Pores of it so much, that the abundance of Juices which would proceed from the Vegetative Compost could not be admitted so fast as they would rise, therefore the whole should be cover'd with a Glass, to keep in all the Vapour which will exhale from the Paste.

I remember once to have planted some Orange Seeds, in a small Pot of Earth, over which I put an empty Pot, by way of covering to shelter the Plant that should come up; I plac'd my Pot of Seeds in the midst of a large Dunghill, in such manner, that  
on



on every side it was equally warm'd. In five Days time I found the Orange Seeds come up, and near a Foot in length, but so very tender, that the bare approach of the Air made them shrink. I suppose, that if I had prepar'd a Compost, in like manner of that which I have before mention'd, and that I had planted the Buds rather than the Seeds of Oranges in it, that then I might have rais'd much taller Trees in the same length of time; but this I cannot affirm, let the Curious make the Experiment; I proceed to examine the Second *Proposition* of our *Author*.

## ARTICLE II.

**W**HEN a Gardener has a desire to stock his Garden with Fruit Trees, to the Number of three Hundred and Fifty,

Fifty, he may with the help of few Workmen, and the assistance of this my new Invention, in a small space of time raise them to be Five, Six, or Nine Foot high; and if he shall continue the Exercise of this wonderful Husbandry for some considerable time, he will have so great a Number of Plants, that he will hardly know how to dispose of them.

## R E M A R K S.

**I**N this and the foregoing Article, the Author seems to have a regard to some Mathematical Proportion in his Numbers of Trees propos'd to be rais'd; the length of time for their Vegetation, and certain Standards for their height; to which I shall only say, That

That if it can be done as he proposes, it is not possible any greater Improvement of Planting can ever be found out, than what he already pretends to have discover'd.

### ARTICLE III.

**I**F any Person would plant a Grove of Trees, to consist of Eleven Hundred and Twenty Six Trees, whether of Oak, Fir, Box, Birch, &c. of the height of Seventeen Foot, it may be easily perform'd in a short time, with a competent number of Workmen, by the help of my Directions.

G

A R-



## ARTICLE IV.

SEeing therefore that this my New Invention is both true and practicable; for as much as I have already given clear Demonstrative Specimens of my Skill in this Art, in the Presence of the most Illustrious and Right Honourable the Count *de Wratislaw*, (His Imperial Majesty's Embassador residing at this time in *Ratistone*,) to the great Satisfaction of his Lordship.

And having since that time, by the help of my Invention, produced many hundred Trees,  
which

which may still may be seen in a prospering Condition ; there remains only one Question, *viz.*

What Money I expect for the communication of this useful Knowledge, from such Gentlemen as are Curious, and willing to improve themselves in this practical Science : To which I answer, That whereas I am no lover of Lucre, or dishonest Gain, my Demand is no more than Five and Twenty *German* Guilders. † provided,

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First,

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† A German *Gilder* is about 2 s. 7 d.  $\frac{1}{2}$  *English* Money.

First, That the said Sum of Twenty Five Gilders be paid down, and that such Person do enter his Name, and Place of paying the said Sum, into my Record Book.; upon which I will give my solemn Assurance, That at the end of one Year the Money shall be return'd, in case the Person shall not then be able to perform all the Particulars mention'd in my Proposals.

Secondly, I am also resolv'd to communicate this Secret to a Hundred and Sixty Persons; and so soon as this Number is fully compleated, I will then deliver  
to



to every Contributor a Written Copy, in which the whole process of my Discovery, and hitherto unknown Operation, will be amply set forth, together with a Tree produc'd according to my Rules.

Thirdly, I shall begin to receive these Contributions on the 20th of *January*, *Anno* 1716, and shall continue so to do till the 17th of *February* in the same Year : But in case the Number should not then be compleat, the remainder of the Sum propos'd may be made up by the Persons interested ; and upon these Conditions, I promise Solemnly to perform

perform all that I have already mention'd, in the Presence of any of the Gentlemen Contributors, as I have already done before the above mention'd Earl of *Wratislaw* upon the 4th of *December* 1715. In the space of One Hour, by the help of Fire and my Vegetative Mixture, I have made Twelve Slips of Limon Trees to produce Roots, Branches and Leaves, and from thenceforth the said Plants have continued to grow, and to bear Fruit.

And furthermore, in the space of One Hour, I have made Six Branches of Apples, Apricots and Peaches,

Peaches, that were Four or Five Foot long, to become perfect Trees, with Roots, Leaves and Branches, which continued to Prosper, and in the following Spring have yielded both Flowers and Fruit ; this I perform'd by the help of my wonderful Vegetative Mixture.

It is unspeakable what great Profit will redound to Gardening and Husbandry, from this Invention, since one Workman alone can raise Twenty perfect Plants or Trees ( whether Exotick or Domestick, in the space of One Hour ) to Grow and Prosper in a most surprizing manner.



manner. And, if the number of your Workmen are increas'd, then in a few Days time you may stock the largest Garden in *Europe* with Orange, Peach, or Apricot Trees : And again, if you employ Forty Men for Eighteen Days, you will have a new rais'd Grove, consisting of Fourteen Thousand One Hundred and Twenty large Trees. But whether the Noble Vine may be also improv'd by my Method, I cannot yet determine, not having had a fit Opportunity to make the Experiment.

## REMARKS.

**B**Y some Accounts from *Ratisbone*, I have learnt that Dr. *Agricola*, upon his first Discovery of this wonderful Secret, did propose to sell it at that time to one Person alone, for the Sum of Four Thousand *German Gilders*; but finding no Purchaser at that Price, he was perswaded to divide the said Sum into One Hundred and Sixty Shares, and receive Subscriptions for it. It is said that a certain Princess of *Germany* has bought it of him for her own Use for Twenty Five Gilders, as he now offers it; and that she, as well as the Count *Wratiflaw* have had sufficient Experience of its wonderful Effects.

D

A R.

## ARTICLE V.

I have met with many Objections from Persons that did not think it possible that such things could be ; to which I answer, that I have been my self for a long time in this unbelief, till Experience cur'd me of this Epidemical Distemper ; for I could not conceive that Fire and a Vegetative Mixture could make a Trunk, or Branch of any considerable thickness, to be so soon adorn'd with Branches, Leaves and Roots, for this seem'd to force Nature too much, as some objected to me ; indeed, there is



a great deal of Skill requir'd to suit the degree of Heat to the respective thickness, and natures of Trees ; for if the Fire be too violent, the Tree will then instead of Budding, be quite parch'd and dry'd up.

In fine, I assure the whole World, that this is the infallible universal Method to propagate *Trees* and *Plants* of all sorts ; and should Nature change its Course, I am fully assur'd that a more certain and expeditious Method cannot be found out for the Production of *Vegetables*. Now, that my Contributors may be fully assured that they have  
this

this Secret, truly and faithfully transmitted to them, each Copy shall be inclos'd in blue Paper, seal'd up with my own *Signet*, and credibly attested.

Lastly, I earnestly Desire all Lovers of this Virtuous and Beneficial Exercise to send in their Subscriptions by the next Spring, otherwise they will lose the opportunity of Learning the greatest Mystery of the *Vegetable Kingdom*, for a very small Sum of Money.

**R E-**

## REMARKS.

THE *Author* of these wonderful Pretensions having concluded his *Proposals*, I shall offer some few *Observations* to the Curious, which perhaps in their Experience, may be serviceable to forward *Vegetation*.

It is well known that where the hardest *Seeds* have been devour'd, either by *Quadrupeds* or *Birds*, that by means of the Passage of them through their Bodies, the *Seeds* have presently come up, or *Vegetated*: For Instance, the *Manchaneſe Apple*, of the *West-Indies*, having been eaten by *Goats*, has paſſ'd through these Animals, and has come up in great quantities.

The *Nutmeg* likewise in the Isle of *Banda* being swallow'd by the *Birds* of *Paradise*, and other Fowls which use  
 E that



that Place, pass through their Bodies, and come up without any other *Cultivation*; and we have Instances enough of the same sort among us, to shew how much *Heat* and *Moisture* will contribute to forward or hasten *Vegetation*, this I think ought to be consider'd Principally, by all lovers of *Planting*; and above all, it is to be desir'd that some *Mixture* may be found, which will produce an *Effect* equal to the *Bodies* of Animals; to this end, I have heard a good Recommendation of the Roots of *Onions*, which being bruised to a Pulp, will forward the sprouting of any *Seed* that is put in them. I have try'd this my self with some Success, and I believe it may not be impossible, from some attempts of this kind, to expedite the growth of *Plants*, even to the degree mention'd by our *Author*.

It is a common Practice in the *East-dies*, for the People of that Country to  
go

go about with *Mangoes*, offering to produce from that Fruit, a perfect *Plant* with *Flowers* and *Fruit* in the space of Two or Three Hours; if any one has a Curiosity to see this Experiment, they perform it in the following manner. They put the *Mangoe* into a Basket of Earth (which they carry with them for that purpose) and immediately cover it with a Napkin, and in the time propos'd, you see the *Plant* perfectly form'd, with *Flowers*, and *ripe Fruit* upon it. This Account I receiv'd from several Persons of undoubted Credit, who have seen the Experiment made.

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## *How to raise a Sallad in Two Hours Time.*

**T**HE Learned Dr. Lemery of Paris gives us a Recipe for the forwarding of the *Vegetation of Herbs*, such as *Purslane* and *Lettuce*, which he affirms may be made to produce Leaves sufficient for a *Sallad* in the space of Two Hours after the sowing of the *Seeds*: For this end, (says he) Take the *Asbes* of Horse Litter and burnt Moss, mix them well together, and moisten them frequently with the Water of a Dunghill, drying the Mixture from time to time in the Sun, till at length you have a Compost, or prepar'd Soil proper for the reception of the *Seeds* you intend to Sow.

When



When you have repeated this Work several times, put this Vegetable Composition into an Earthen Vessel well Glazed, sowing the Seeds of Purslane and Letuce in it, as you would do on common Earth; then place the whole over a Chafing Dish of warm Embers to give it Heat equal to that of the Sun in July, and in Two Hours time the Seeds will sprout and put forth Leaves, if Care be taken to keep them moist with Dunghill Water during the Operation. In this Liquor he would likewise have the abovemention'd Seeds to be steep'd for Twenty Four Hours before they are Sown.

But this Experiment being only recommended to us in a Foreign Language, perhaps the Tryal of it has not yet been made in *England*; therefore, as a further Proof of the possibility of our *Author's* Proposition, I shall offer one thing more, which may convince the  
Reader

Reader that Dr. *Agricola* has not promis'd us more than he can probably perform. I think the raising of *simple Trees*, as he pretends, is not more Wonderful than the Production of *Fruits* in the midst of *Frost* and *Snow*; which is done by Mr. *John Millet*, an Ingenious Gardiner and Nursery-Man, at *North-End*, near *Hammersmith*, where I have seen several Pound weight of ripe *Cherries*, *Apricots*, with *Roses* and other Summer *Flowers* and *Fruits* growing and prospering in the Months of *January* and *February*, and this he *Annually* performs with the same good Success.

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## Experiments collected by Mr. DERHAM.

**I**T is not to be doubted, that although *Vegetables* delight in peculiar Soils, yet they owe not their Life and Growth

Growth to the Earth itself, but to some agreeable Juices, or Salts, &c. residing in the Earth. § Of this the great Mr. Boyle † hath given us some good Experiments. He order'd his Gardiner to dig up, and dry in an Oven some Earth fit for that Purpose, to weigh it, and to set therein some *Squash Seeds*, (a kind of *Indian Pompion*.) The Seeds when sown were water'd with Rain or Spring-Water only. But although a Plant was produc'd in one Experiment of near Three Pounds, and another of above Fourteen Pounds; yet the Earth when dried, and weigh'd again, was scarce diminish'd at all in its weight.

Another Experiment he alledges is of *Helmont's*, \* who dried 200 lb. of Earth in an Oven, and having put it  
into

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§ Vide *Physico. Theol.* 4th Edit. pag. 61. † Vide *Boyle's Sceptical Chymist*, pag. 107. \* *Ibid.* 113.



into an Earthen Vessel, planted there in a Willow, weighing 5 lb. which he water'd with Rain or distill'd Water: And to secure it from any other Earths getting in, he cover'd it with a perforated Tin Cover. After Five Years weighing the Tree with all the Leaves it had born in that time, he found it to weigh 169 lb. 3 Ounces, but the Earth to be diminish'd only about 2 Ounces in its weight.

Dr. *Beal* † who was very curious, and tried many Experiments upon *Vegetables*, gives some good Reasons to imagine, that there is a direct Communication between the Parts of the Tree and the Fruit, so that the same Fibres which constitute the Root, Trunk, and Boughs, are extended into the very Fruit. And in old *Hornbeam's*, I § have observ'd something very

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† Vide *Louthorp's* Abridg. of the Philos. Transact. Vol. II. pag. 710. § Vide *Physic. Theol.* pag. 406.

very like this; in many of which, there are divers great and small Ribs (almost like *Ivy*, only united to the Body) running from the Root up along the outside of the Body, and terminating in one single, or a few Boughs; which Bough or Boughs spread again into Branches, Leaves and Fruit.

But as to the particular Canals, and other Parts relating to the Anatomy of Vegetables, it is too long a Subject for this Place, and therefore I shall refer to *Seigneur Malpighi's* and *Dr. Grew's* Labours in this kind.

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We shall here insert a Proposal as surprizing as that of Dr. *Agricola*, taken from the *Leiden Gazette* of Tuesday the 4th of *August*, 1716. viz.

**M**R. *John Christian Lechman* (Professor extraordinary of *Physick* and *Natural Philosophy*, at *Leipsick*, and Member of the *Leopoldine*, and *Royal Society of Prussia*) hereby gives Notice, that he has discover'd a New Secret, whereby he will undertake,

*First*, To produce the finest Flowers such as *Amaranthus's Anemonies*, *Hony-Suckles*, *Crocus's*, *Fritilarie's*, *Germander's*, *Hepatica's*, *Hyacinth's*, *Jasmin*, *Crown Imperial*, *Jonquils* single and double, as also *Iris*, *Lillies*, *Narcissus's*, *Carnations*, *Auricula's*, *Pan-cies*, *Snow-drops*, *Polyanthos*, *Ranuncula's*, *Roses* white or yellow, *Tuberoses*, *Tulips*, *Violets*, *Piramidal Violets*,



*lets*, during the Months of *November*, *December*, *January*, *February* and *March*.

*Secondly*, To preserve them for three Weeks upon their Stalks after they are fully blown.

*Thiraly*, To pack them up for a Voyage or Journey, of Six, Eight or Twelve Days.

*Fourthly*, To restore them to their Colours, Beauty and Vivacity, for Eight Days after their arrival at the Places where they are sent to.

His Demand for the Purchase of this Secret is Four Pounds, upon the Receipt of which Sum, he will give Bond to return each Purchaser his Money back again, after the *Fair of Easter*, 1717, if he is not by that time a compleat Master of the whole Secret. But he requires that this Secret shall  
not

not be disclos'd to any one before *Ex-  
ster* 1718, unless it be to the Gardiners  
or Workmen who shall be employ'd in  
putting it in Execution : And he far-  
ther gives Notice, that all those who  
are desirous of knowing this Curious  
Art, ought to begin about the middle  
of *August* ; he has perform'd all that  
he Proposes for Four Winters past  
with Success. King *Augustus* of *Po-  
land*, and many other *Princes* have  
been Witnesses of his Experiments,  
and the Beauty of his *Flowers* in the  
depth of Winter, and the most emi-  
nent Gardiners have been fill'd with  
Admiration at these Productions,  
which are compass'd at a very small  
Expencc.

MVSEVM  
BRITAN  
NICVM

F I N I S